DATALOGIC™

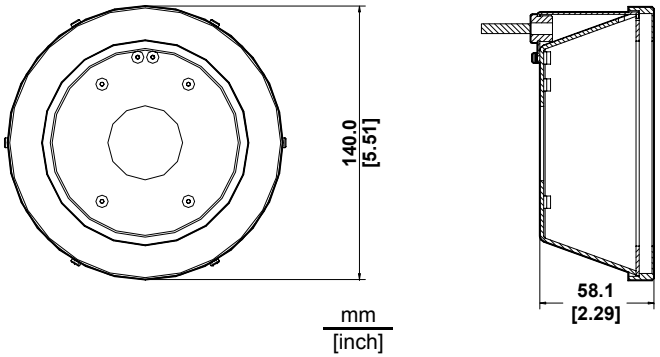
LT-100 CONE LIGHTING SYSTEM FOR MATRIX FAMILY READERS

DESCRIPTION

The LT-100 Cone Lighting System provides a circular symmetrical light source designed for the following applications:

- with uneven or noisy background surfaces. By using LT-100 these disturbances are suppressed and the code is highlighted.
- where dot peening or laser etching codes are directly marked onto metal surfaces or PCBs and need to be highlighted.
- in the presence of highly reflective surfaces (metal, glass, etc.) causing direct reflections.

MECHANICAL DIMENSIONS

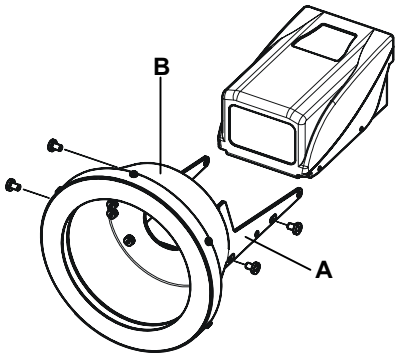


PACKAGE CONTENTS

The LT-100 package contains the following items:

- LT-100 Cone Lighting System
- Matrix-1000/2000™ Mounting bracket
- (4) M2.5 screws for bracket mounting to cone
- (4) M4 screws for bracket mounting to reader
- (4+4) M2.5 locking and flat washers for bracket mounting to reader
- Instruction Manual

MOUNTING Matrix-1000/2000™

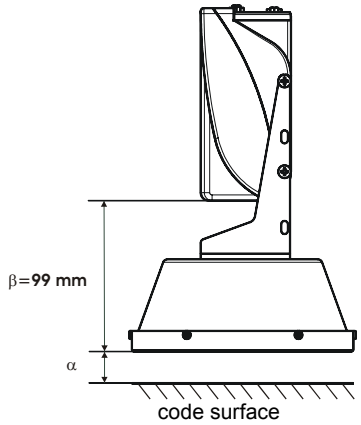


1. Mount the bracket **A** onto the LT-100 Cone **B** using the 4 M2.5 screws in the package.
2. Mount the reader onto the lighting cone assembly aligning it to the correct holes according to the Focus Distance of the model used. See "Positioning" in the Matrix Reference Manual. Use the 4 M4 screws and washers in the package.
3. Wire the LT-100 to the CBX according to the Wiring table on the opposite page.
4. Position the Matrix assembly over the code reading area at the correct Focus Distance for your model, (described in the Matrix Reference Manual under "Reading Features").

NOTE

Alternatively, the accessory BK-510 bracket can be used to mount Matrix-1000/2000™ to the LT-100 Cone. This bracket provides slots to increase positioning possibilities.

POSITIONING Matrix-1000/2000™



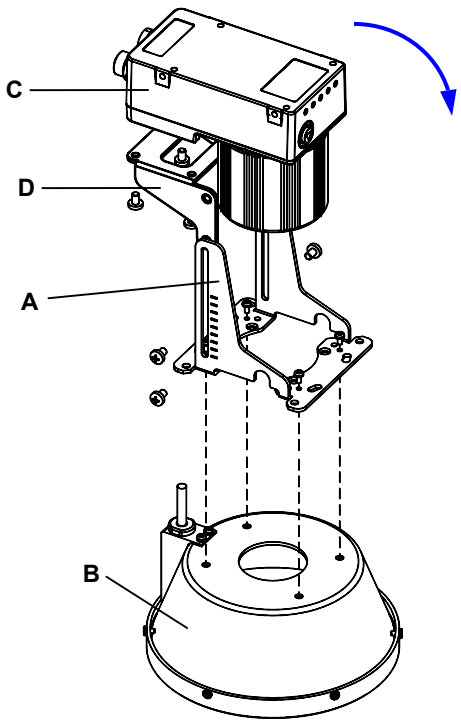
Focus distance = α + β

The best results for this illuminator are obtained when α is approximately 20 mm (0.8"). However other Reading Distances (described in the Matrix Reference Manual) can be used. You can maximize the reading performance through VisiSet™.

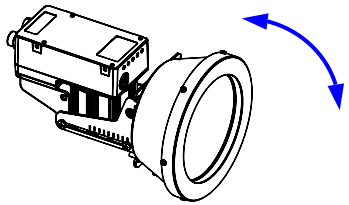
MOUNTING Matrix 400™

The following parts are required for mounting:

- LT-100 Cone Lighting System
- BK-4990 Matrix 400™ Generic LT Bracket

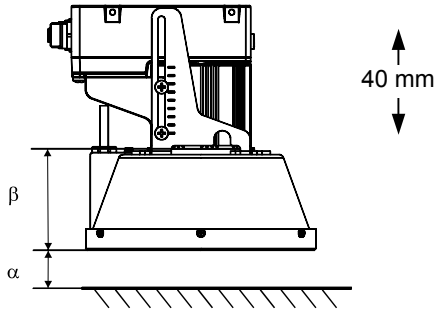


1. The BK-4990 bracket comes already partially mounted (**D+A**) with 2 M4 screws.
2. Mount the bracket **A** onto the LT-100 Cone **B** using the 4 M2.5 screws in the bag marked "Screws for Brackets-LT-100/LT-300 assembling".
3. Swing the bracket **D** 90° and mount the reader **C** onto it through the mounting holes on the bracket. Use 4 of the M4 screws in the bag marked "Screws for Bracket-Bracket-Reader assembling".



4. Wire the LT-100 to the CBX according to the following Wiring table.
5. Remove the Lens Cover and loosen the Locking Knobs as described in the Reference Manual. Swing the bracket **D** 90° returning to the reading position.
6. Position and mount the Matrix assembly over the code reading area at the correct Focus Distance (or range) for your model, (described in the Matrix Reference Manual).
7. Perform the Focusing procedure described in the Reference Manual.
8. After Focusing, tighten the Focus and Diaphragm Locking Knobs. Swing the bracket **D** 90° as previously shown to replace the Lens Cover. Swing the bracket **D** 90° returning to the reading position and fix the reader assembly (**C+D**) to the illuminator assembly (**A+B**) with the remaining 2 M4 screws from the bag marked "Screws for Bracket-Bracket-Reader assembling".

POSITIONING Matrix 400™



Focus distance = α + β

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WIRING

Wire Color	CBX/Matrix Signal	Meaning
Red	Vdc	10 to 30 Vdc
Black	GND	Ground
Blue	O1-, O2-, (O3-)	Control Signal -
White	O1+, O2+, (O3+)	Control Signal +

CAUTION

The LT-100 control signals must always be connected to one of the Matrix Digital Output signals*. In VisiSet™, set the relative Output Line Function parameter to "External Lighting System" and the Matrix Output x External Lighting System Mode parameter to "Triggered".*

TECHNICAL FEATURES

Supply Voltage	10 to 30 Vdc
Power Consumption	1.5 to 0.5 A; 15 W max.
Optimal Working Distance	20 mm (0.8")
Effective Working Range	12.7 - 50 mm (0.5" - 2")
Illumination Area	Ø 90 mm @ 20 mm (Ø 3.5" @ 0.8")
Wavelength	630 nm
Max. LED Output Power	0.2 mW to EN60825-1
Typical Irradiance	10 W/m² @ 20 mm
Operating Temperature	0 – 40 °C
Dimensions (D x H)	140 x 58 mm (5.5" x 2.3") (without bracket)
Weight	305 g. (without bracket)

COMPLIANCE

LED Class

Class 1 LED Product to EN 60825-1:(2001)

Power Supply

This product is intended to be connected to a UL Listed Direct Plug-in Power Unit marked LPS or “Class 2”, rated 10 to 30 V, minimum 1.5 A.

CE Compliance

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Compliance

Modifications or changes to this equipment without the expressed written approval of Datalogic could void the authority to use the equipment.

This device complies with PART 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference which may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.